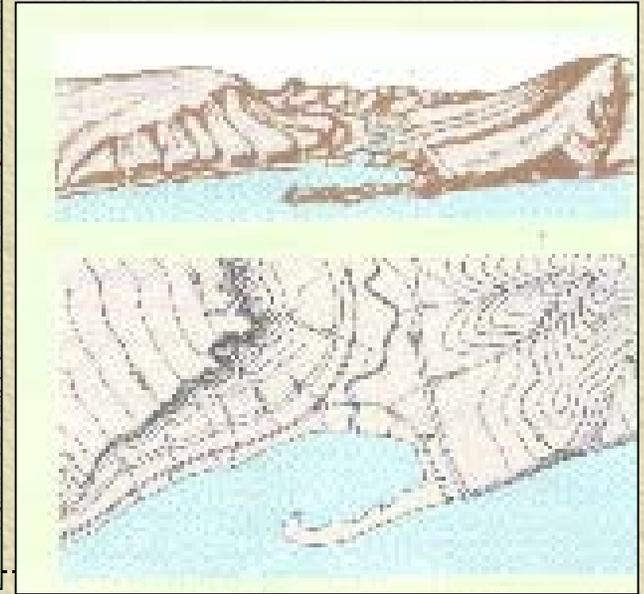
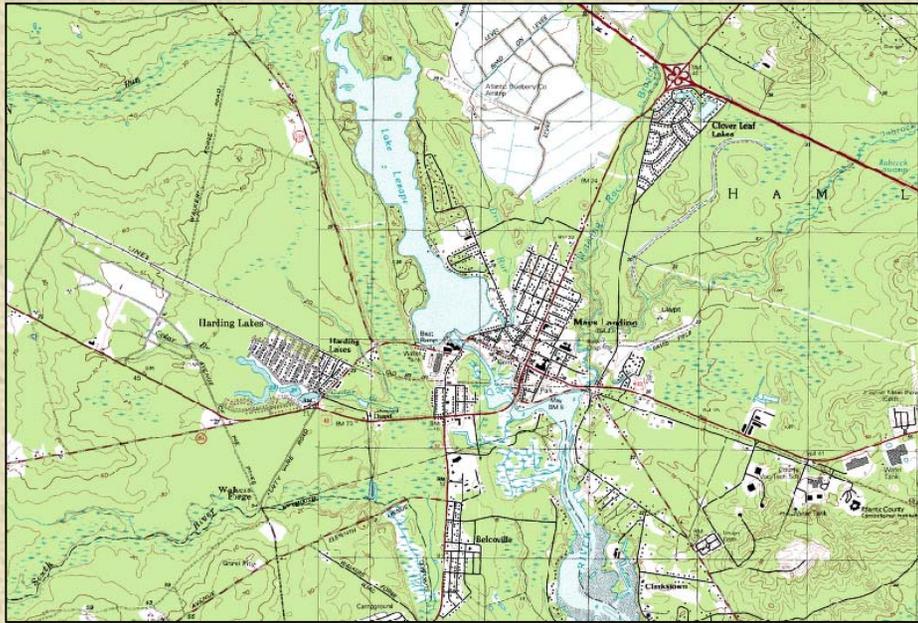


How to Read a Topographical Map



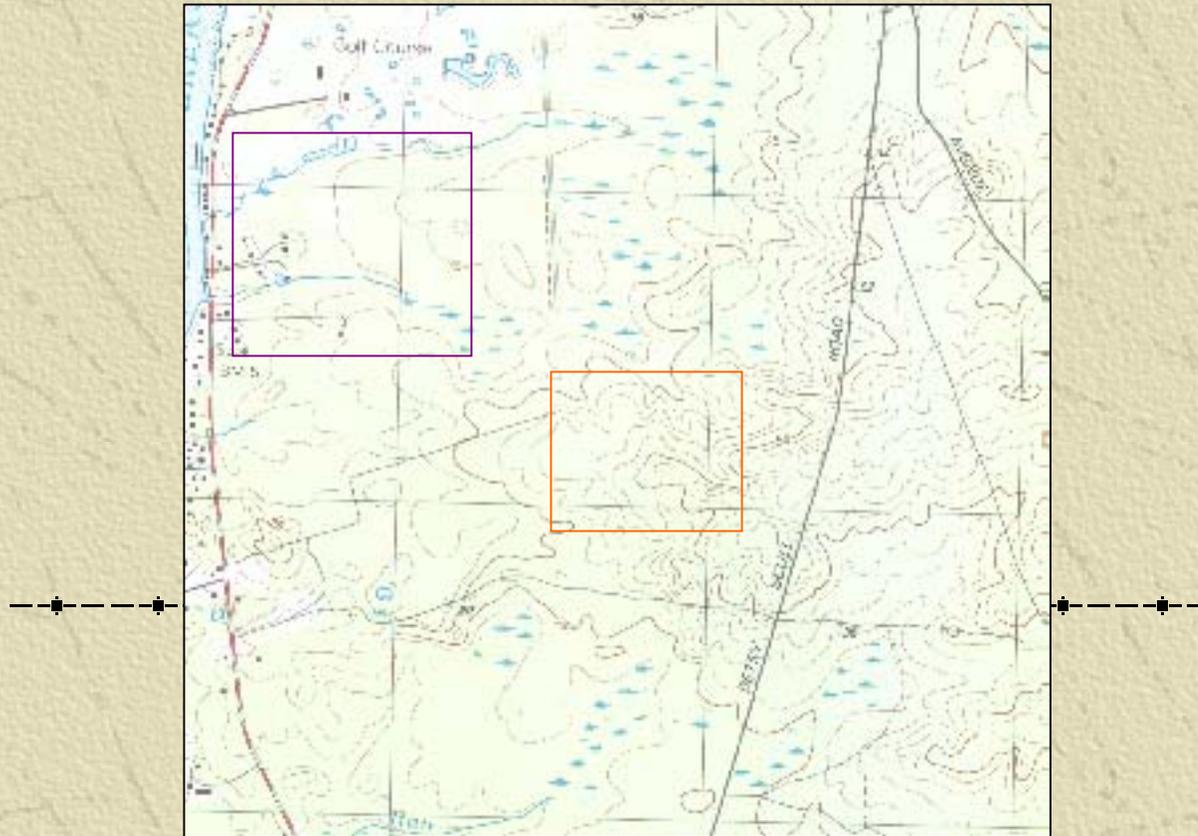
A topographic map illustrates the topography, or the shape of the land, at the surface of the Earth. The topography is represented by **contour lines**, which are imaginary lines. Every point on a particular contour line is at the same elevation. These lines are generally relative to mean sea level. The illustration above on the right shows a correlation between the contour lines, and how the topography of the land would appear from a horizon. Contour lines are generally illustrated as a brown line.

How to Read a Topographical Map



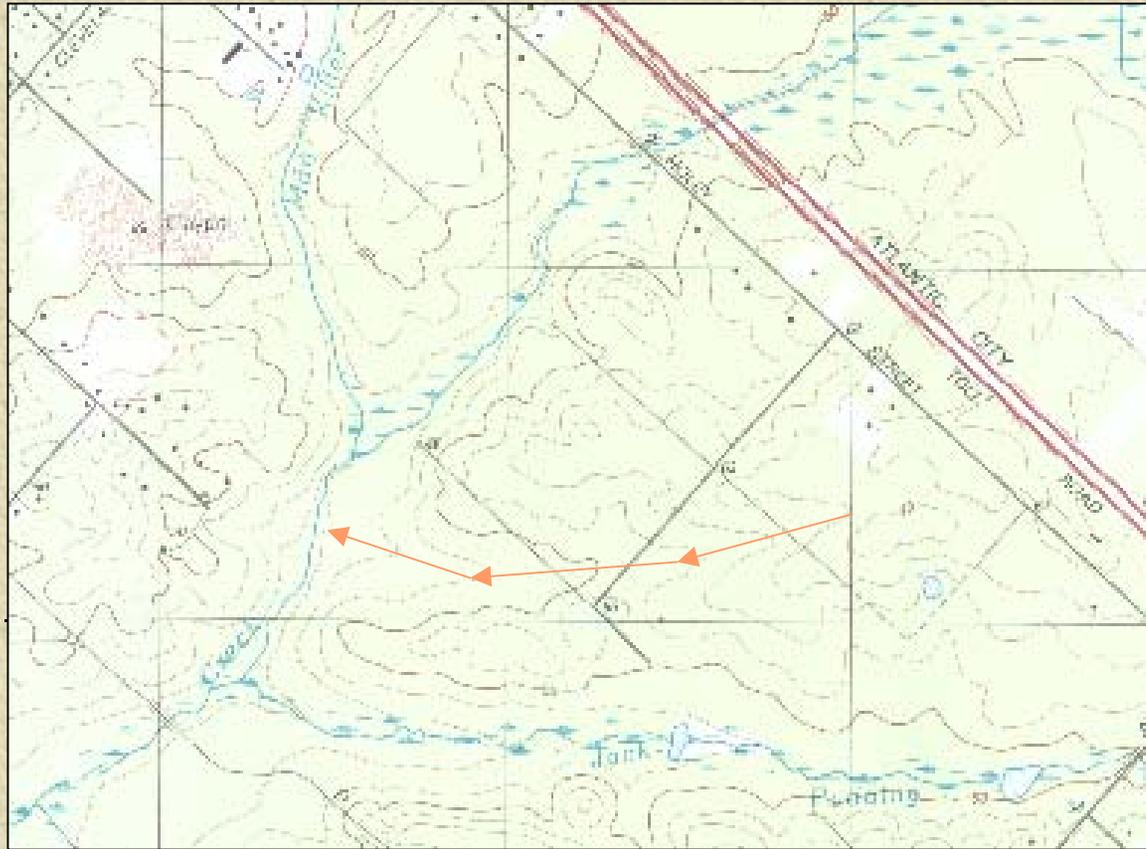
Individual contour lines on a topographical map are a fixed interval of elevation apart known as a **contour interval**. Common contour intervals are 5, 10, 20, 40, 80, or 100 feet. The actual contour interval of a map depends upon the topography being represented as well as the scale of the map. If you look at the areas marked with an orange box on this map you will see contour elevation numbers. This is the elevation of the contour line, relative to mean sea level.

How to Read a Topographical Map



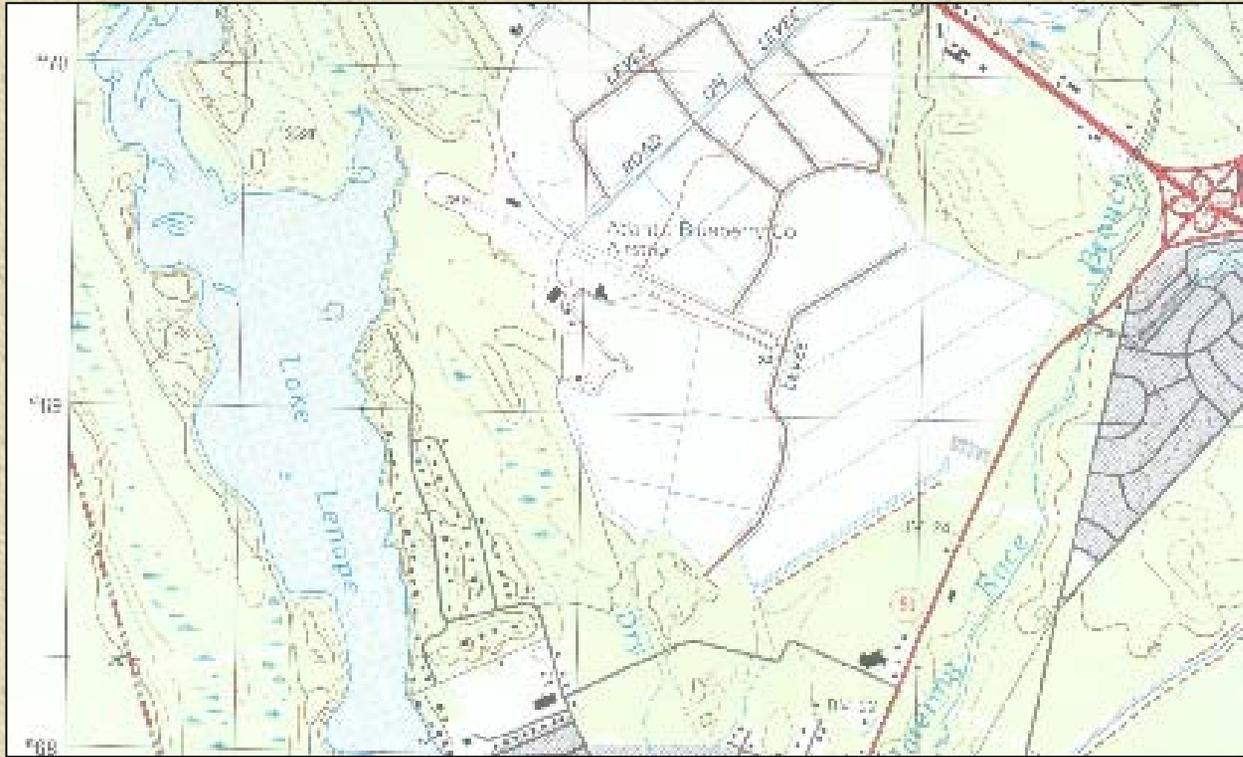
Contour lines that are relatively close together indicate a slope that is fairly steep. Contour lines that are further apart indicates a slope that is relatively flat. The area of the map above boxed in orange shows an area that has a fairly steep slope, while the area boxed in purple is a relatively flat area.

How to Read a Topographical Map



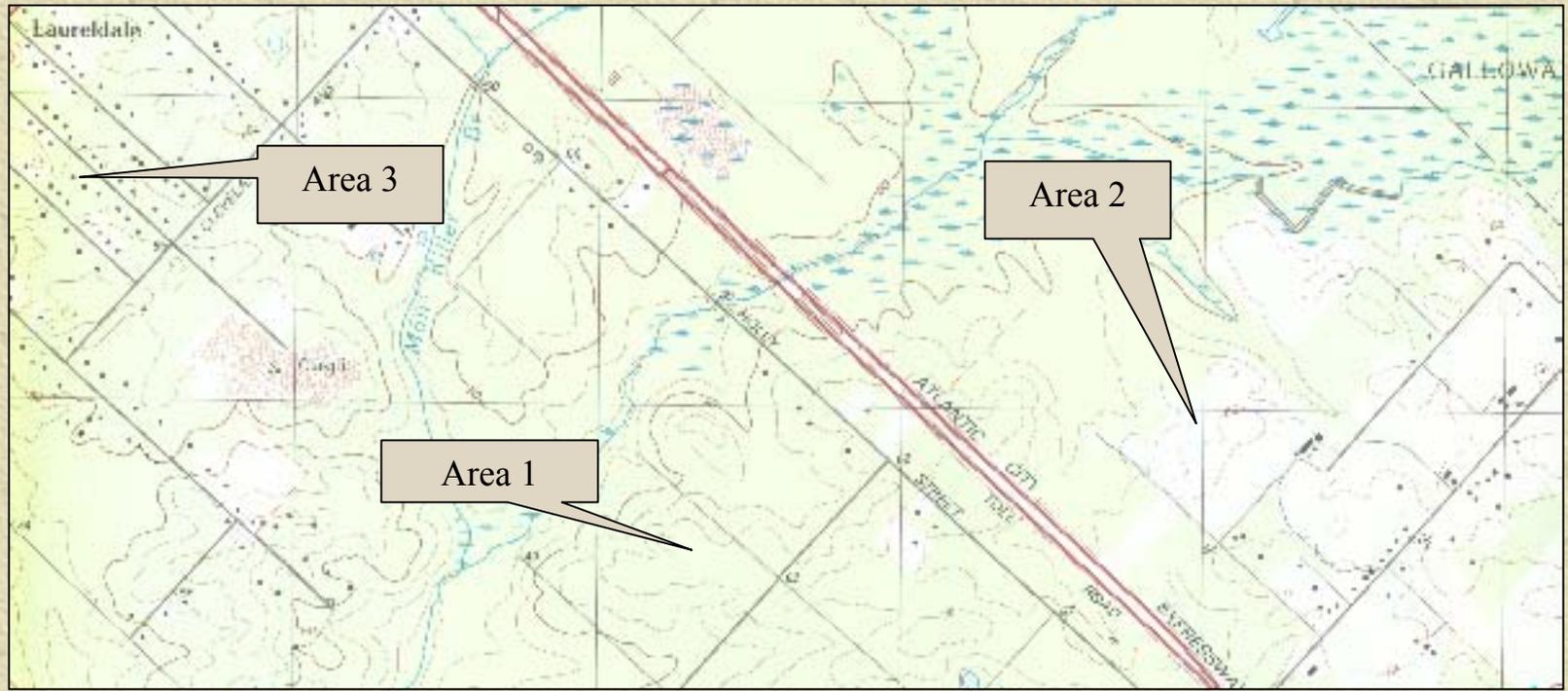
Contour lines on the map also show how water will travel across the land. Contours that form a V can you tell which direction water will flow. The bottom of the V points in the upstream direction. The orange line above shows the direction water would flow on this section of the map.

How to Read a Topographical Map



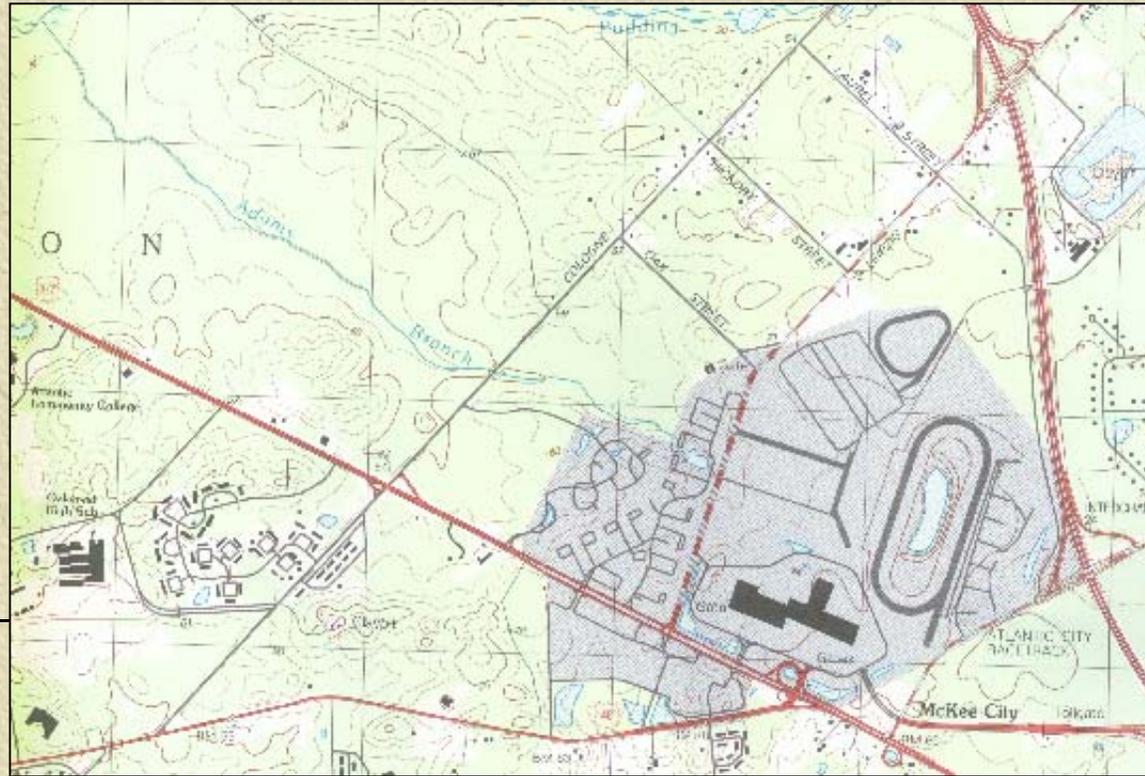
Other features such as land cover, roadways, buildings and structures, municipal boundaries, and water features are also shown on topographical maps. Water features such as streams, wetlands, rivers, drainage ditches, lakes, and ponds are usually illustrated as blue lines or blue colored areas.

How to Read a Topographical Map



Land use on a topographical map is indicated by colors and symbols. Wooded areas and other areas vegetated heavily with trees and brush are green. Areas that have been cleared of trees, areas that are farmed, and open fields are white. Areas that are urbanized may be, green, white, or gray. Area 1 in the illustration above is wooded. Area 2 is a farm field. Area 3 contains houses and streets.

How to Read a Topographical Map



Symbols are used to indicate features on the map. For example, major highways are red lines, while other roads and streets are black lines. House and buildings are usually black boxes, rectangles, or other geometric shapes. When reading a topographical map, try to utilize a map index that contains the symbols commonly used on the maps.